

ILLINOIS COMMERCE COMMISSION

DOCKET No. 12-0598

REVISED REBUTTAL TESTIMONY

OF

JERRY A. MURBARGER

Submitted On Behalf

Of

AMEREN TRANSMISSION COMPANY OF ILLINOIS

May 6, 2013

TABLE OF CONTENTS

	Page No.
I. INTRODUCTION AND WITNESS QUALIFICATIONS	1
II. PURPOSE AND SCOPE.....	2
III. ATXI'S REBUTTAL ROUTE COST ESTIMATES	3
IV. RESPONSE TO INTERVENERS GENERALLY.....	4
V. RESPONSE TO STAFF WITNESS MR. ROCKROHR.....	5
A. Additional Cost Comparisons	5
B. Right-of-way Width.....	8
VI. RESPONSE TO JDL BROADCASTING, INC.	9
VII. CONCLUSION	11

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Ameren Transmission Company of Illinois

I. INTRODUCTION AND WITNESS QUALIFICATIONS

Q. Please state your name, business address and present position.

A. My name is Jerry A. Murbarger. My business address is 370 S. Main Street, Decatur, Illinois, 62523-1479. I am currently a Transmission Design Specialist in the Transmission Lines Design group for Ameren Services Company (“AMS”). In conjunction with the Illinois Rivers Project (the “Project”), AMS, on behalf of Ameren Transmission Company of Illinois (“ATXI”), will be designing approximately 375 miles of new 345 kilovolt (“kV”) transmission line, multiple breaker stations and/or substation enhancements and six (6) new 345/138 kV transformers.

Q. Are you the same Jerry A. Murbarger who sponsored direct testimony in this proceeding?

A. Yes, I am.

19 **II. PURPOSE AND SCOPE**

20 **Q. What is the purpose of your testimony?**

21 A. The purpose of my testimony is to:

- 22 • Provide baseline cost estimates for ATXI's Rebuttal Recommended Routes, as
23 identified in the rebuttal testimony of ATXI witness, Ms. Donell (Doni) Murphy;
- 24 • Provide information in response to interveners' concerns about alleged impacts of
25 the Transmission Line on their properties, including JDL Broadcasting, Inc.'s
26 ("JDL") concerns regarding maintenance issues; and,
- 27 • Respond to Staff witness, Mr. Greg Rockrohr's request for certain cost
28 information and comments on the required width of right-of-way necessary for
29 the Project.

30 My failure to address specific testimony or positions should not be construed as an endorsement
31 of same.

32 **Q. Are you sponsoring any exhibits in support of your rebuttal testimony?**

33 A. Yes. I am sponsoring the following:

- 34 • ATXI Exhibit 16.1 Rebuttal Recommended Routes Baseline Costs
- 35 • ATXI Exhibit 16.2 Typical Tangent Structure Drawing
- 36 • ATXI Exhibit 16.3 Staff Requested Cost Comparisons

37 **Q. Please explain ATXI Exhibit 16.2.**

38 A. ATXI Exhibit 16.2 is a structure drawing of a typical tangent structure that may be
39 required for long span construction.

40 **III. ATXI'S REBUTTAL ROUTE COST ESTIMATES**

41 **Q. What are the Rebuttal Recommended Routes?**

42 **A.** For each portion of the Project, the Rebuttal Recommended Route is the Transmission
43 Line route ATXI recommends for approval, as discussed by Ms. Murphy. These routes reflect
44 any stipulations entered into by ATXI as of the date of this testimony.

45 **Q. What is the base cost of ATXI's Rebuttal Recommended Routes for the**
46 **Transmission Line?**

47 **A.** The estimated base cost, in total for the Project based on initial engineering estimates, but
48 not including any substation costs, for ATXI's Rebuttal Recommended Routes is \$746,051,000
49 (in 2012 dollars). ATXI Exhibit 16.1 provides base cost estimates for ATXI's Rebuttal
50 Recommended Routes, by Portion of the Project. Additional cost comparison data pertaining to
51 certain Intervener alternate route proposals, as requested by Mr. Rockrohr and discussed below,
52 are included in ATXI Exhibit 16.3.

53 **Q. Was the baseline cost of ATXI's Rebuttal Recommended Routes calculated in the**
54 **same manner as the baseline cost of the proposed Transmission Line contained in ATXI**
55 **Exhibit 7.4?**

56 **A.** Yes.

57 **IV. RESPONSE TO INTERVENERS GENERALLY**

58 **Q. Please summarize the Interveners' concerns about the impact of the Transmission**
59 **Line as it relates to your testimony.**

60 **A.** As also discussed in the rebuttal testimonies of ATXI witnesses, Mr. Rick D. Trelz and
61 Mr. Jeffrey V. Hackman, many Interveners are concerned with the impact the Transmission Line
62 may have on the use of their properties. For instance, certain Interveners have expressed
63 concerns that their ability to farm will be impacted due to interference with aerial crop spraying
64 or center pivot irrigation equipment, or because of difficulty maneuvering machinery around the
65 poles. Certain Interveners also express general concerns about the location of the Transmission
66 Line on their specific property, for instance, with regard to proximity to grain bins.

67 **Q. Have the precise locations of the poles been determined yet?**

68 **A.** No. The purpose of this proceeding is to determine the route ATXI's Transmission Line
69 will take. The exact locations of the individual Transmission Line poles have not yet been
70 determined, and, in fact, will not be determined until the detailed design phase. The detailed
71 design phase does not occur until after a route is approved, because it would be inefficient to
72 attempt detailed design for multiple routes.

73 **Q. What happens during the detailed design phase?**

74 **A.** ATXI performs the specific detailed design of the routes, including pole locations, pole
75 height, angle structure locations and stream and road crossings. At this detailed design stage,
76 ATXI has some limited flexibility in determining where the physical structures of the poles are
77 located. Structures can be moved up to five feet from the centerline of the route, toward the edge
78 of the right-of-way. The distance between the structures can also be adjusted up to fifty feet.

Q. Can the landowner concerns identified above be mitigated during the detailed design phase?

A. In some cases, where feasible and appropriate, yes. ATXI will seek to coordinate with each landowner on placement of the poles, and will adjust pole placement where feasible and appropriate to address specific landowner concerns. Examples of instances in which moving location of the pole could mitigate a landowner's concern(s) include situations in which: (1) a new pole was too close to a field entrance; (2) a new structure was placed so close to an existing structure or fence that farm equipment could not reasonably maneuver between the two; and (3) situations in which new structures would have otherwise been placed inside the arc of an existing or soon-to-be constructed center pivot irrigation system. In sum, I believe that these types of concerns raised by the Interveners can be addressed through pole placement during final line design. However, if it is not feasible or appropriate to adjust pole placement, ATXI may also seek to coordinate with the landowner on using taller structures with longer spans, to the extent practicable. See ATXI Exhibit 16.2 for an example of these taller structures.

V. RESPONSE TO STAFF WITNESS MR. ROCKROHR

A. Additional Cost Comparisons

Q. Please summarize Mr. Rockrohr's recommendation that ATXI provide additional cost comparisons for certain Intervener proposed alternate routes.

A. In the course of evaluating the route for each portion of the Project, Mr. Rockrohr recommended ATXI provide an exhibit similar to ATXI Ex. 7.4 that also includes base cost estimates for the following:

- **River-Quincy:** N. Kohl Grocer Company d/b/a Kohl Wholesale's ("N. Kohl Grocer") Secondary Alternate Route;
- **Quincy-Meredosia:** (1) Adam's County Property Owners and Tenant Farmer's ("ACPO") Alternative Route 1; and (2) Staff's proposed "Hybrid Route" as it is described in the direct testimony of Mr. Rockrohr (pp. 29-30);
- **Meredosia-Ipava:** The Nature Conservancy's ("TNC") preferred alternate route;
- **Meredosia-Pawnee:** (1) The Morgan and Sangamon County Landowners and Tenant Farmers' ("MSCLTF") alternative route; and (2) Gregory and Theresa Pearce's ("Pearce") first alternate;
- **Pana-Mt. Zion:** the Village of Mt. Zion's alternative substation site;
- **Mt. Zion-Kansas:** (1) the Village of Mt. Zion's alternative substation site; and (2) Moultrie County Property Owners' ("MCPO") preferred route; and
- **Kansas-Sugar Creek:** Stop the Power Lines Coalition's ("STPL") second alternative route.

These cost comparisons¹, along with the cost of ATXI's Recommended Rebuttal Routes, are shown in ATXI Exhibit 16.3.

Mr. Rockrohr also requested ATXI provide the combined costs of the AIC connections and MCPO's Pana-Kansas proposed alternate route. To make the cost comparisons in ATXI Exhibit 16.3 "apples-to-apples" with ATXI Exhibit 7.4, the cost of AIC's connections are not included in ATXI Exhibit 16.3 as these were also not included in ATXI Exhibit 7.4 to my direct testimony.

As explained by Ms. Murphy, when submitting alternate route proposals neither Macon County Property Owners nor Mr. Leon Corzine identified the landowners along their proposed

¹ The cost estimates for these intervener proposed alternate routes do not include displacement costs. Thus, to the extent these routes would require displacing any residences or other structures, the cost will be higher than that shown in ATXI Exhibit 16.3.

alternate route between Pana and Kansas as required by the Case Management Plan, nor supported this route in testimony. Thus, I have not included any cost information for the Macon/Corzine Pana to Kansas alternate route as it is not valid or proper for consideration.

Q. Are the additional cost estimates and comparisons contained in ATXI Ex. 16.3 based on the same unit costs as the cost estimates provided in ATXI Ex. 7.4?

A. Yes. The cost estimates for the alternative routes requested by Mr. Rockrohr are based on the same unit costs (in 2012 dollars) as the base cost estimates contained ATXI Ex. 7.4. The cost estimates for ATXI's Rebuttal Recommended Routes are also based on the same unit costs (in 2012 dollars) as the base cost estimates contained in ATXI Ex. 7.4.

Q. Please respond to Mr. Rockrohr's statement (ICC Staff Ex. 1.0R, pp. 46-47) that ATXI's cost estimates in ATXI Exhibit 7.4 for the Mt. Zion to Kansas Portion seem illogical.

A. Mr. Rockrohr stated his review indicated that ATXI's proposed Primary Route appears to be longer and would likely require more dead-end structures than ATXI's proposed Alternate Route. Based on a review conducted in order to address Mr. Rockrohr's statement, ATXI determined that the cost estimate for the Primary Route included in ATXI Exhibit 7.4 was based on a length of 66.32 miles and not the correct 68.32 miles. The corrected base cost estimate is reflected in ATXI Exhibits 16.1 and 16.3. As a result, the Primary Route for the Mt. Zion to Kansas Portion is slightly longer and more expensive than the Alternate Route. ATXI is now recommending the Alternate Route for the Mt. Zion to Kansas Portion, as discussed in more detail by Ms. Murphy.

B. Right-of-way Width

Q. Does Staff witness Mr. Rockrohr object to ATXI's request that the Commission expressly find that a right-of-way width of 150 feet is reasonable and appropriate?

A. No he does not.

Q. Does he have any comments on right-of-way width?

A. Mr. Rockrohr states (ICC Staff Ex. 1.0R, pp. 53-54) "if a 150 foot right-of-way were unavailable within a section of a particular route, that fact would not necessarily meant the route could not be used."

Q. Please respond.

A. I agree with Mr. Rockrohr that a route would not be eliminated from consideration solely on the unavailability of 150 feet right-of-way along a limited portion of that route. ATXI could construct the Transmission Line on narrower right-of-way, using short span construction, as long as all National Electrical Safety Code clearances were maintained. As stated in response to Staff Data Request ENG 1.34 (ICC Staff Ex. 1.0R, Attach. N), using shorter span construction and shorter structures increases the number of structures from a minimum of six structures per mile to up to possibly nine structures per mile. Thus, not only is the cost of the route higher, there would be additional impacts to the landowners due to the location of additional structures on their properties. As a result, it is my opinion that 150 feet is the appropriate width in the vast majority of cases, and a narrower right-of-way width should only be considered in special, limited circumstances when not feasible to utilize a 150-foot right-of-way.

Q. Do you agree with Mr. Rockrohr's statement that "it is conceivable that installing additional structures to accommodate a narrower right-of-way could be less costly than using an entirely different route"?

A. Yes. For example, it could be less expensive to use a narrower right-of-way at certain locations along a route where encroachments have created a narrow corridor than it may be to construct a different, longer route altogether. If strictly comparing dollars, any cost savings would depend on additional factors, such as the length of routes being considered and the number of additional structures needed to construct the narrower right-of-way. As explained by Ms. Murphy in direct testimony, however, dollar cost is only one of the factors ATXI considered in its route siting analysis.

VI. RESPONSE TO JDL BROADCASTING, INC.

Q. Does JDL Broadcasting, Inc. raise a concern regarding line maintenance?

A. Yes. JDL witness, Mr. Charles F. Ellis' concern is that maintenance concerns with the Transmission Line could cause radio transmission interference and disrupt the radio station WMMC's broadcast signal (JDL Broadcasting Ex. 2.0, p. 5).

Q. What specifically does Mr. Ellis allege?

A. Mr. Ellis claims arcing or corona discharge from the Transmission Line could occur and cause radio transmission interference. He alleges "worn insulation, loose bolts or cracked or chipped insulators" can cause corona discharge. He further concludes, "it is not uncommon for transmission lines of this size to have these sorts of maintenance issues." (JDL Broadcasting Ex. 2.0., p. 5.)

185 **Q. Does Mr. Ellis have any basis for his concerns?**

186 **A.** No. Mr. Ellis has admitted he has no direct knowledge or evidence that the proposed
187 Transmission Line will have worn insulation, loose bolts or cracked or chipped insulators
188 (Responses to ATXI-JDL 4.32, 4.33). Nor does he provide a basis for his statement "it is not
189 uncommon for transmission lines of this size to have these sorts of maintenance issues." The
190 Transmission Line will be constructed and maintained in accordance with all applicable standards.

191 **Q. Does ATXI routinely inspect and perform maintenance on its transmission lines?**

192 **A.** Yes. The Transmission Maintenance Group for AMS is in charge of arranging any
193 maintenance on all transmission lines owned by Ameren Corporation subsidiaries. Semi-annual
194 aerial patrols are performed to inspect such lines for any damage. Also, a foot patrol inspection
195 will be performed within twenty years after the line has been placed in service, and followed up
196 on again after ten years. A patrol report is generated after the inspection and contains details of
197 all deficiencies. Additionally, customers may call a toll-free number at any time to report any
198 damage or other maintenance concerns.

199 **Q. What happens if any damage is identified?**

200 **A.** When damage is found that could cause an emergency situation to cause harm or an
201 outage, that repair is made immediately. Other repairs would be made as soon as practicable
202 thereafter.

203 **Q. Given these practices, would you expect to see the sort of "maintenance issues" Mr.**
204 **Ellis alleges?**

205 **A.** No.

206 VII. CONCLUSION

207 Q. Does this conclude your revised rebuttal testimony?

208 A. Yes, it does.